

**CLAIMS**

- 1 – Device (101) for printing an image onto a large surface, including
  - a means (307) for transferring dye to said surface,
  - at least one means (301) for prehension, allowing an operator to handle the device in order to reproduce the image on the large surface, characterized in that it includes:
    - a means (303-309a) for referencing the location of the device on the layout of the large surface.
    - a means (305-309a) for orienting the device on the layout of the large surface,the device also being characterized in that the means of orientation and the means of location work with the means for dye transfer in order to synchronize the dye transfer with the position and orientation of the device on said large surface.
- 2 – Device according to claim 1, wherein the means of referencing location involves an optical sensor (303) to read a grid spanning the large surface.
- 3 – Device according to claim 2, wherein each intersection of the grid is associated with a location data point read by the sensor.
- 4 – Device according to one of the claims 1 through 3, wherein the means of referencing location involves an optical sensor (316) to read a location data point on the large surface.
- 5 – Device according to one of the claims 1 through 4, wherein the means of location involves an ultrasonic receiver (504).
- 6 – Device according to one of the claims 1 through 5, wherein the means of orientation involves a gyroscope (305).
- 7 – Device according to one of the claims such that the means of orientation involves a sensor (316) to track the route taken by the device on the large surface.
- 8 – Device according to one of the claims 1 through 7, wherein it involves a memory (306) for recording an image before it is transferred to the large surface.
- 9 – Device according to one of the claims 1 through 8, wherein the device involves a memory (315) for recording the progress of the image transfer onto the large surface.
- 10 – Device according to one of the claims 1 through 9, wherein the means of dye transfer is selected from among the group formed of at least an ink-jet device, a paint jet device.